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AMENDMENTS TO THE SPECIFICATIONIN THE SPECIFICATION:

Please amend the paragraph beginning on page 15, line 24, as follows:

--Fig. 1 shows a preferred embodiment of an apparatus according to the invention, adapted to scan large a specimen 14. A member 17 positioned on a frame (not shown) may hold a substantially circular disc 13 with a diameter of 120 mm, the disc providing a specimen 14, which is submitted for scanning. Furthermore, a microscope 20 is provided for examination of the specimen.--

Please amend the paragraph beginning on page 17, line 5, as follows:

--The optical system of the apparatus comprises a 488 nm argon-ion gas laser (not shown) used as a light source. The first light beam 12 emitted from the laser is transmitted through a focusing lens 10 and a dichroic filter 9 to dichroic beam-splitter 6. This beam-splitter 6 serves two purposes, first to reflect the first light beam 12 towards the specimen 14, and second to filter and direct resultant light 15 emitted from the specimen 14 towards a photo-multiplier 1. The resultant light 15 may comprise a light component originating from a reflected portion of the first light

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beam 12 and a fluorescent light component emitted from fluorescent target objects (not shown) contained in the specimen 14. The dichroic beam-splitter 6 and the dichroic filter 4 both contribute to attenuate the light component originating from the laser source (not shown), thereby enhancing the signal to noise ratio of light transmitted to the photo-multiplier 1. The resultant light 15 passing dichroic filter 4 is transmitted through a rectangular slit 16 provided in a mask 3 inserted in the optical path to the photo-multiplier 1. The slit 16 is, preferably, provided with dimensions that result in projected dimensions of length 30 μm and width 15 μm , respectively on the photo-multiplier 1. Accordingly, the slit 16 creates a light path aperture of dimensions, which combined with magnification lens 11, and the optical system comprising lenses 2, 5 and 7, defines the dimensions of the irradiated part of the specimen as "seen" by the photo-multiplier i.e. the dimensions of the irradiated specimen area projected upon the photo-multiplier 1.--